

## **ABSTRACT**

In general, in one aspect, the invention features a method that includes exposing a surface to a first gas composition under conditions sufficient to deposit a layer of a first chalcogenide glass on the surface, and exposing the layer of the first chalcogenide glass to a second gas composition under conditions sufficient to deposit a layer of a second glass on the layer of the first chalcogenide glass, wherein the second glass is different from the first chalcogenide glass.

5